

*Livestock Forage  
Grazing Management*

for deferred rotation systems. The remaining 59 allotments receive seasonal grazing, the impacts of which vary with the season of use. For definitions of these kinds of grazing management, see Appendix D, Grazing Systems.

The major seasons of use are from April 1 to June 30 and October 16 to December 31 for sheep; March 1 to June 30 for spring cattle use; May 1 to August 15 for summer cattle use; August 1 to December 31 for fall cattle use; November 1 to March 15 for winter cattle use; and April 1 to December 15 for season-long cattle use. Generally, spring cattle turnout is in April, fall cattle turnout is in October or November, and the closing date for season-long cattle allotments is in September or October, with some season-long allotments receiving fall extensions in most years. The actual length of time which sheep graze the area is determined primarily by accessibility and forage availability on the area and on nearby National Forest lands.

Based upon 1978 to 1982 average actual use, 32 percent of the forage was harvested in spring, with an additional 51 percent harvested under season-long grazing which includes spring use. Only 17 percent of the forage was harvested totally during fall and winter. Generally spring forage is in short supply in the area since private rangeland provides primarily winter forage and farmland provides useable forage primarily after harvest. Public land provides an important component of the annual forage base for over 150 livestock operators.

The area has an unusual situation in that 936 AUMs of active preference were assigned to the Wendell Trail, a designated sheep trailing route across the western portion of the planning area, rather than to specific areas of land (allotments). The intent was to accommodate annual sheep trailing without over-obligating forage in allotments along the route. Although Wendell Trail preference has been converted to active cattle preference within allotments upon several occasions, it carries no suspended preference for future increases. The approximate location of the Wendell Trail is shown on Map 10.

There is a continuing decline in sheep numbers in the planning area. In recent years, a significant amount of sheep use has been converted to cattle use.

### Vegetation

A vegetative inventory was conducted in 1980-1982 in conjunction with a third-order soil survey. The inventory/survey determined the natural potential plant communities (range sites) based on Soil Conservation Service (SCS) methodology (USDA-SCS 1976). The vegetative inventory also determined present range condition, present vegetation types, and rated the observed apparent trend of the allotted public lands of the Monument Planning Area. Range site descriptions and soil/vegetation correlation information are available at the Shoshone District Office.

Ecological condition is the relationship of a present plant community to the potential plant community for the site. It is an expression of the relative degree to which the kinds, amounts and proportions of plants in a plant

community resemble the potential community. Ecological condition is a rating that does not consider suitability of a plant community for livestock, wildlife, or other resource uses. Seedings were given a condition rating on the amount of the seeded species in relation to the total production of the site.

The ecological condition classes do not necessarily imply a scale of values for particular uses. For example, poor ecological condition range provides good sheep forage since they prefer weedy annual forbs and small, tender grasses such as Sandberg bluegrass. On the other hand, crested wheatgrass seedlings provide better spring and summer cattle forage since they green up early and stay green longer in summer than cheatgrass or native ranges. Fair and good condition classes have a good shrub component which may provide shade for livestock and habitat for shrub-dependent wildlife, but they often hinder livestock access to herbaceous forage. Ecological condition classes merely imply the degree of alteration in the plant community composition from that of similar undisturbed communities.

Four condition classes were assigned during the vegetative inventory: good, fair, poor, and seeded (refer to Appendix D, Methodology). Two percent (17,172 acres) of the allotted public lands is in good range condition, 8 percent (71,009 acres) is in fair condition, 70 percent (644,090 acres) is in poor condition, and 20 percent (180,394 acres) is seeded. Over half (348,500 acres) of the poor condition range has 5 percent or less of the potential plant community remaining and can be classified as highly disturbed. Condition class acreages by allotment are given in Table D-1, Appendix D, and ecological and seeded condition classes are shown on Map 10.

The major species on most of the poor condition range is cheatgrass (Bromus tectorum), with annual forbs, Sandberg bluegrass (Poa sandbergii), and remnants of native shrubs such as big sagebrush (Artemisia tridentata) and rabbitbrush (Chrysothamnus spp.). The fair and good condition range is found primarily in areas which have been protected from past repeated fires and overgrazing, such as lava bed areas and isolated pockets of soil within lava flows. The fair and good condition ranges have progressively more diverse and more productive native grasses, shrubs, and forbs and fewer weedy annuals. Many of the seedings, which are primarily crested wheatgrass, originated from fire rehabilitation efforts.

The present vegetation of the Monument Planning Area can be characterized in six major plant communities: (1) basin big sagebrush, (2) Wyoming big sagebrush, (3) three-tip sagebrush, (4) gray rabbitbrush, (5) cheatgrass, and (6) crested wheatgrass. Minor vegetation types include Rocky Mountain juniper, mountain big sagebrush, green rabbitbrush, and riparian. Table D-2 in Appendix D lists the species occurring in each vegetation type, and Map 11 shows the locations of each vegetation type in the planning area.

Cheatgrass is the most common plant species on the planning area. It is the major component of the plant communities of about 24 percent of the planning area, and is abundant on 97 percent of the planning area (excluding new lava). *Although cheatgrass has good forage qualities for livestock and wildlife during the late fall and early spring, it lacks the longer-lasting forage qualities of perennial species during the late spring and summer months.* The widespread presence of cheatgrass is due to an early history of heavy grazing and frequent wildfires (Peimeisel 1945; Hull and Pechanec 1947; Yensen 1980, 1981).

## Livestock Forage Vegetation

Cheatgrass was well established in the planning area by 1955 when permanent photo points were established for trend measurements. Photographs from eight of the nine photo points established at this time show vegetation with abundant cheatgrass. In 1982, retakes of the original photographs revealed essentially no change in the vegetative composition of five of the nine sites. Three sites were seeded to crested wheatgrass and the ninth site has remained in perennial vegetation.

Cheatgrass is now a permanent part of the ecology of the planning area (Klemmedson and Smith 1964, p. 236). It is highly competitive with native herbaceous species (Daubenmire 1940, 1942; Stewart and Hull 1949; Hulbert 1955) and is highly flammable. Its presence greatly inhibits succession toward the potential plant communities of the area by increasing fire frequencies, causing earlier burns (see Fire Ecology, Chapter 3) and by direct competition. Hull (1970) reported the results of seeding 90 species on southern Idaho rangelands and found that native species fared poorly. The non-native crested wheatgrasses were given the highest success ratings, yet Klamp and Hull (1972) found that even crested wheatgrass establishment was in direct relation to the kill of cheatgrass. Daubenmire (1975, pg. 44) observed that seedlings of bluebunch wheatgrass were largely unable to expand into cheatgrass communities and that even with abundant seed source of perennials, cheatgrass has maintained dominance for 52 years (pg. 43). Even so, sand dropseed, western wheatgrass, and Indian ricegrass have been seeded in this area with some success. Daubenmire (1975) reported on the ability of sand dropseed to establish itself in stands of cheatgrass on land that has been repeatedly cultivated and then abandoned. Hironaka and Tisdale (1963) documented the ability of seedlings of the short-lived bottlebrush squirreltail to compete with cheatgrass and eventually to replace it. Hironaka and Tisdale also described a restrictive set of circumstances necessary to enable a conversion from cheatgrass to perennial grass. They further stated that most native and introduced species do not possess the necessary characteristics. If the few species capable of competing with cheatgrass were seeded and protected from grazing, the rate of successional change in the less than 12-inch precipitation zones dominated by cheatgrass would be very slow. This slow improvement would likely be halted by wildfires that, due to the flammability and widespread presence of cheatgrass, are beyond our ability to completely control. In light of the aggressive nature of cheatgrass, its flammability and the lack of perennial seed sources on areas dominated by cheatgrass, seeding with crested wheatgrass remains the only practical method of restoring perennial forage to these areas.

Trend is the direction of change in ecological condition. Trend ratings for the planning area are based on long term photo points, permanent photo trend plots, and observed apparent trend ratings made during the 1980-1982 vegetation inventory. Presently, 21 percent (190,434 acres) of the planning area has an upward trend, 74 percent (678,387 acres) has a stable trend, and 5 percent (46,804 acres) has a downward trend. Trend ratings are shown on Map 9.

Threatened and Endangered Plants

During the 1981 field season, the eastern one-half of the planning area was surveyed for the presence of threatened or endangered plant species. The survey focused on, but was not limited to, species that have been identified by the Rare and Endangered Plants Technical Committee as likely to occur in this area (Steele et al. 1977, 1981). One species proposed for listing as "Endangered," the Picabo milkvetch, (Astragalus oniciformis Barneby) was discovered on sandy soils in association with basin big sagebrush. Another species proposed for listing as "Endangered," arching pussytoes (Antennaria arcuata Cronq), was found in meadows adjacent to the planning area, but its presence in the planning area is unlikely, due to the lack of meadow habitat. No other species of concern were discovered. The inventory report by Inter-Mountain Research of Provo, Utah, and locations of plant populations are available at the Shoshone District Office.

An additional survey to determine the extent of the Picabo milkvetch was conducted during the 1984 field season (Packard and Smithman 1984). This species was found to be much more common than previously thought, and its known range was greatly expanded. It is widespread on the northwestern portion of the planning area and on adjacent BLM and patented lands near Picabo. It also occurs as far south as the city of Shoshone, Idaho, and several miles both east and west. The northeastern boundary lies about 25 miles east of Carey, defining an area roughly 30 miles by 30 miles at the widest points.

A status change for this species from candidate "Endangered" to "State Watch List" has been recommended by the Rare and Endangered Plants Technical Committee.

Two relict vegetation communities have been identified in the planning area that have met the criteria of relevance and importance for identification as potential ACECs. These areas provide examples of vegetation communities that once occupied much larger areas.

One relict vegetation community, the Substation Tract, covers 440 acres and supports a good condition community of Wyoming big sagebrush/Thurber's needlegrass. Records indicate that the site has had little or no grazing since before 1959, and has not burned in over 100 years (Hugie 1959). The plant community is representative of a range site that once occurred on thousands of acres of the Snake River Plains in Idaho. The Substation Tract has the only known remaining relict community of its condition and size in the Shoshone District.

The University of Idaho has recognized the importance of this vegetation community in a letter dated January 17, 1983.\* "The soils of the area would provide excellent benchmarks to study the effects of agricultural practices on soil alteration. The mantle of native natural vegetation makes this area

\*Personal communication from M. Hironaka, Professor, Department of Range Resources, University of Idaho, and M.A. Fosberg, Professor, Department of Plant, Soil, and Entomological Sciences, University of Idaho.

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Threatened and Endangered Plants*

extraordinarily valuable. Opportunities to set aside representative areas such as this with the original vegetation intact are rare--and may be our last chance to do so."

In October 1983, a report was completed by the Idaho Natural Area Coordinating Committee recommending the Substation Tract for research natural area designation (Caicco and Wellner 1983).

Carey Act applications have been filed on all 440 acres of the Substation Tract. Another threat to the vegetation community is burning. Although burning would not destroy the values of the tract as a relict area, these values would diminish with burning.

The second relict vegetation community, the Silver Sage Playa, covers ten acres of a small playa lake with a fair condition community of silver sagebrush/Nevada bluegrass. Examples of this community in fair or better condition are uncommon in this area. Silver sagebrush sites often serve as water sources, so most of them have been somewhat disturbed. The Silver Sage Playa shows signs of considerable disturbance.

The Silver Sage Playa is covered by a DLE application. Another threat to the vegetation community is burning. Burning would diminish the values of the tract as a relict area, but the vegetation would likely recover quickly.

#### LANDS

There are 1,178,989 acres of *public* land under BLM management in the Monument Planning Area. In addition to these lands are several thousand acres under Bureau of Reclamation withdrawal or withdrawals for power site purposes. The BLM has varying degrees of management on some of the withdrawn lands. This includes granting rights-of-way, mineral leases, patents, grazing permits, and mining law administration.

Other types of withdrawals or de-facto withdrawals are those for stock driveways, public water reserves, and land use classifications. Stock driveway and public water reserve withdrawals segregate the land against nonmetalliferous mineral entry and applications for entry that are discretionary with the Secretary of the Interior. The Multiple Use Classification segregates against Homestead, Desert Land, Indian Allotment entries, and public sale applications.

Appendix E contains a discussion of standard operating procedures for transfer of lands from Federal ownership.

## *Lands*

### *Land for Local Government and Community Expansion*

#### Agricultural

The vast majority of private land holdings in the planning area were obtained through agricultural entries such as the Desert Land Act, Carey Act, Reclamation Homestead Act, and the Stock Raising Homestead Act.

All of the current filings for agricultural development have been made under the Carey Act or the Desert Land Act. These filings cover 43,990 acres.

Sales of public lands under Section 203 of FLPMA may also be made for agricultural development. Parcels sold under this provision will be no larger than necessary to support a family-sized farm.

The availability of a water supply, sufficient to irrigate all the potential irrigable acres in an entry, is required. Nearly all proposed entries identify the water source as ground water from wells drilled into the Snake River Aquifer. Anticipated well depths average about 300 feet. As part of the water appropriation process, a water permit application must be approved by the State of Idaho, Department of Water Resources. The Snake River Aquifer is known to underlie all areas currently under application, but the depths to water and quantities available are unknown. In areas known to have a declining water table, the State of Idaho, Department of Water Resources, may designate a management area or a critical ground water area and restrict further development of the water. Further restrictions on development could occur as a result of litigation and proposed legislation in the State Legislature.

At the present time, no new water permits are being approved by the Idaho Department of Water Resources because of an Idaho Supreme Court ruling which granted Idaho Power Company a certain water right at Swan Falls Dam. This apparently subordinates much of the upstream water use to Idaho Power Company's Swan Falls right.

Electric powered pumps are normally used to energize the water and sprinkler systems. Idaho Power Company, the major utility company in the area, has had a moratorium on new electric well hookups since 1977. This has resulted in using less economical pumping units run on diesel or propane fuels. Pumping costs represent a major cost in crop production and the additional costs can adversely affect the economic feasibility of an operation.

#### Land for Local Government and Community Expansion

Shoshone is the only community in the planning area isolated by public lands that may limit community expansion. The community has shown a general downward population trend over the past 30 years, and nothing indicates a reversal in that trend. Although all other communities in the planning area are on a static to upward population trend, there are sufficient adjacent private lands available to accommodate most anticipated residential, commercial, and industrial expansion needs.

## *Lands*

### *Land for Local Government and Community Expansion*

The greatest need for public lands by local government is for use as sanitary landfills, mineral material sources for construction and maintenance projects, and rights-of-way. Some public land sites have also been identified for recreation use and development. The Recreation and Public Purposes Act provides the authority to allow developments under either lease or lease with future possibility of purchase. Sale or lease provisions under Section 203 and Section 302 of FLPMA, respectively, may also be used. Mineral materials may be made available through sales or free use permits.

Ideally, sanitary landfills should be centrally located, have good, all-weather access, and be located such that other land values and uses will not be adversely affected. Two to three acres per 10,000 people per year is necessary where soils are from 10 to 15 feet deep. Soils, therefore, present the greatest limiting factor in determining suitability for sanitary landfill purposes. Very few sites larger than a few acres have soils of sufficient depth to provide the periodic covering necessary to meet State health standards required for sanitary landfills.

At the present time, Lincoln County and the communities of Gooding, Jerome, Eden, Hazelton, and Dietrich all operate sanitary landfills on public land. Existing and proposed sites under the R&PP Act encompass 1,120 acres.

### Known Land Exchange, Sale, or Land Acquisition Proposals

The District receives many proposals to exchange private lands for public lands and requests to sell public land tracts. These actions may occur under FLPMA provisions of Section 206 (exchanges) and Section 203 (sales). Section 205 of FLPMA allows the Secretary of the Interior to acquire non-Federal lands by purchase, exchange, or donation. Exchanges of private or State land for public lands may be considered only on lands included in a transfer category in an approved land use plan such as this RMP. Areas covered by these types of proposals are shown on Map 12 as Non-Bureau Disposal Proposals.

### Isolated Tracts

Isolated tracts are those parcels of public land that are surrounded by private lands or are cut off from larger public land blocks by lava flows, canyons, rivers, or manmade features such as roads, canals, and railroads. In some cases, they may be an appendage of a larger block of land that extends linearly into the private lands. The tracts may vary in size from less than an acre to several hundred acres.

Many of these tracts have no physical or legal public access, while others may have legal access but very restricted physical access. Because of this, and their size, they do not receive the management attention as would a larger

*Lands*  
*Present Use Authorization*

block of land. As a result, unauthorized use of them is common. They often create a management barrier to the surrounding private landowners and are the properties for which the public has expressed the greatest amount of interest in acquiring.

They are often needed for, or would enhance, a private land operation. Conversely, they sometimes offer significant public values such as wildlife habitat that would be preserved in public ownership.

Present Use Authorization

Land use authorizations include uses for occupancy for various purposes of limited duration, public works leases, airport leases, and rights-of way. Map 12 shows some of these authorizations.

The majority of the uses are for occupancy related to agriculture and include farming small tracts, storage of farm equipment and products, and bee hive locations. Other uses include sites for remote airstrips, caves for civil defense, maneuver and training areas for National Guard units, rights-of-way, and construction headquarters sites. They may be casual, short-term, one-time uses, or may include substantial site modification over a long period of time.

Long term rights-of-way include highways, roads, ditches, canals, oil and gas pipelines, power lines, telephone lines, communication sites, power substations, airport beacon and nondirectional beacon sites, electric power generating sites, and material sites.

Cooperative agreements can be used to allow uses by Federal government entities and for such uses as aquifer recharge and flood control areas.

Rights-of-way needs are normally expressed by private and governmental entities through the filing of an application. The Bureau, on its own initiative, also identifies needs for the preservation of access and the protection of improvements. Much of the demand is tied to agricultural or residential development.

Right-of-way demand for communication sites is increasing. Three major sites within the planning area have the characteristics that most users desire and have, therefore, been developed for communication purposes. The sites are Kimama Butte, Flat Top Butte, and Notch Butte. Kimama Butte and Notch Butte are somewhat limited for future development because of their size and the potential impact on the BLM fire lookouts at those sites. Joint use of existing and future facilities reduces the clutter and number of structures at these sites, but may result in some problems such as interference with other users. Flat Top butte is a heavily used site, but, because of its size, can accommodate much more development. All new users are required to provide space for subsequent users in their facilities.